MIDAS BRONZE KIT ASSEMBLY GUIDE

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Welcome to the ranks of Midas owners!

You have no doubt just ordered your Midas Bronze kit, and we are confident that the detailed information contained in this guide will make the assembly as straightforward as possible. In the weeks before your kit is ready for collection, we suggest that you study this assembly guide carefully so that you can gather together the correct parts to build your Midas. We also give you advice on the selection of donor vehicles, brakes, wheels and tyres.

Don’t forget we are always available to give help and advice so if you have any queries, don’t hesitate to phone or write. If you are stuck for a part, remember we hold almost everything in stock from complete disc brake assemblies to a clevis pin.

Most of all, enjoy the build!

Best wishes,

H.J.R. Dermott
Managing Director

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INTRODUCTION

The building of a complete motor vehicle from a kit involves more than the simple mechanical assembly. If the final vehicle is to fulfil long term requirements, careful thought should be given to the selection of the mechanical components. After all although the build up might take a month, the finished product must give years of service. For example, you must decide on the balance of performance and economy you require, whether insurance needs to be considered, the availability of parts and spares, and your overall budget.

We are pleased to pass on ten years experience of building kit cars, together with information on engines, brakes, wheels and tyres to make sure that your Midas will safely meet your needs for years to come.

THE SELECTION OF THE DONOR VEHICLE

The vehicle which will provide the main mechanical components for your Midas will of course be a Mini.

Although the Mini has been in production since 1959, we shall not consider any vehicle prior to 1976 as we do not think that vehicles older than this are fit to provide mechanical components. There are, of course, exceptions to this but they are very rare.

The other reason is that 1976 saw the only major re-design in the Mini's long life, with the adoption of a rubber mounted front subframe and the improved 'rod-change' gearbox. This change took place in October 1976, and these cars can be immediately identified by raising the bonnet and looking at the main subframe mounting on the cross member. The earlier cars had two normal (3/8 UNF) bolts each side, whereas the later cars have one enormous hexagonal bolt head each side. The Midas will only accept the later type of subframe, although parts from an earlier car can be used and transfered to a new subframe.

WHICH DONOR CAR IS BEST FOR ME?

Of course, there is no single answer to this question. From the above you will see that a post Oct. 1976 car is by far the best, and there are plenty of these available, so why choose an older car? By far the best donor car in our opinion is a late model insurance write off, with rear end or roll over damage. (Any Mini with heavy frontal damage should be rejected). Such a car will probably have done less than 20,000 miles, and the mechanical parts will be in excellent condition, requiring the minimum or reconditioning.

Don't forget also that you will have many bits that you don't require for your Midas, such as doors, glass, trim, wheels,

etc. that you can sell to offset the cost of the original purchase of the donor car.

The other main decision is engine capacity. The majority of post 1976 cars will be 998 c.c. or 1098 c.c. as the 1275 GT ceased production in 1978. However if you want a 1275 engine, don't forget that the ordinary Allegro 1.3 power unit is identical to the 1275 GT unit apart from the final drive ratio. You will also need the front disc brake assemblies from a 1275 GT or Cooper S. **ON NO ACCOUNT USE THE DISC BRAKES FROM A 997/998 c.c. MINI COOPER**.

If you are very lucky you might find a post Oct. 1984 car which will have a 998 c.c. engine, front disc brakes (same as old 1275 GT discs) and 12" wheels.

Insurance groups are Gp 2 for the 998 c.c. Mini engine and Gp 4 for a 1275 GT.engine.

POWER UNITS, BRAKES, WHEELS AND TYRES

Only British Leyland A Series power units from British Leyland transverse engined cars may be used in the Midas. These power units must only be used with brake/wheel/tyre specifications as laid out in the following table:

ENGINE	BRAKES Front	Rear		WHEELS	TYRES
848/998 cc	Drum	Drum	or	4.5 x 12	145/70 – 12 SR
				or	or
				5.0 x 12	155/70 – 12 SR
1098/1275 cc	Disc	Drum	or	5.0 x 12	155/70 – 12 SR
				or	or
				5.5 x 13	165/60 – 13 HR

Notes:

1. Only dual circuit brakes may be used. Single circuit systems can be converted to dual circuit simply by changing the master cylinder and brake pressure valve. Full details on this conversion are available from the factory: we can also offer the necessary parts at very reasonable prices. All brake pipes supplied by the factory will be for dual circuit systems. If your donor car uses a dual circuit system, this simply transfers to your Midas (with new brake pipes, of course).

2. Any post 1976 drum rear brakes can be used with any front brake system. Remember you need to fit 1275 GT rear drums to give the correct clearance for the rear wheels. These drums can be fitted without altering the rest of the brake assembly. The bore of the rear brake hydraulic wheel cylinders should be ½".

3. The front disc brakes must be from post 1974 cars with

a disc diameter of 8.4 inches. These discs were fitted to the 1275 GT from 1974 to 1978 and to all the Mini range from October, 1984. i.e. only to cars fitted with 12″ wheels. The earlier 7.5 inch diameter discs are not suitable. **ON NO ACCOUNT MUST THE SMALL DISC ASSEMBLIES FROM THE 997/998 c.c. MINI COOPER BE USED.**

4. Front drum brakes must be twin leading shoe assemblies as used on all Minis (except the Mini Cooper, Mini Cooper S and 1275 GT) from Chassis No. 296257 and 638879 (approximate change date 1963). Front drum brakes should not be used with engine power outputs in excess of 45 b.h.p.

TYRES AND TYRE PRESSURE

The normal tyre pressures on a Midas are 28 psi in the front tyres and 22 psi in the rear tyres. If you are carrying a great deal of luggage then these should be increased to 32 psi front and 28 psi rear. Remember to reduce the pressure when the car is unloaded. For sustained high speed driving with one or two people in the car, use 30 psi front and 24 psi rear.

The table below lays out the maximum speed and load ratings for the tyres recommended for your Midas:

TYRE	MAX. LOAD PER WHEEL	AT PRESSURE	SPEED
145/70 — 12	290 kg	33psi	113m.p.h
155/70 — 12	325 kg	36psi	113m.p.h
165/60 — 13	355 kg	32psi	130m.p.h

Note: If your Midas has a maximum speed in excess of 113 m.p.h you should use 165/60 — 13 tyres.

Maximum permitted vehicle weight is 950 kg.
Maximum permitted front axle weight is 550 kg.
Maximum permitted rear axle weight is 450 kg.

CONSTRUCTION AND USE REGULATIONS

Although cars built by amateur builders are exempt from Type Approval requirements they must comply with Construction and Use Regulations. These regulations are lengthy and complex, but in general a Midas kit built using recommended components will comply. In addition, your Midas kit complies with the requirements of the SMMT Code of Practice for Kit Cars.

To ensure compliance with the Lighting Regulations~ only the stated light units fitted to the pre—drilled holes should be used. This applies to side lights, indicator lights, head-lights, rear light units and fog rearguard lights.

To ensure compliance with the seat belt regulations the seat belts should be fitted exactly as stated.

In order to comply with the requirements for windscreen wiper swept area, only the specified wiper motor and gear, wiper arms and wiper blades should be used in the pre-drilled holes provided.

In order to comply with C & U Regulation 14A, dual circuit brakes must be fitted, together with the brake combinations recommended in the introduction.

In order to comply with the radio interference suppression requirements, only suppressed sparkings plugs and leads as fitted as standard to a post 1976 Mini should be used.

In order to comply with the accuracy of speedometer requirements, the Mini speedo gears must be changed to suit the Metro instrument pack. The correct gears are:

Final Drive	Metal Gear	Plastic Gear
3.44	22G2022	DAM2904
3.2	22G2022	DAM2905
3.1	2A3720	DAM6365

For any other final drive, or any speedometer problems, we recommend Speedy Cables Ltd., 10/12 Gaskin Street, London, Nl 2SA, Tel: 01-226-9228.

MIDAS BRONZE KIT ASSEMBLY GUIDE

This guide is intended to give you the best sequence in which to assemble your Midas. It is necessary that you also have access to a good Mini workshop manual, such as the Heynes or BL's own, in order to correctly overhaul the Mini parts before final assembly. The BL Mini workshop manual is part number AKD 4935.

Before starting work, lift the bodyshell onto blocks placed at the four corners of the floorplan to raise the floor about 12″ - 18″ off the ground. These blocks should be placed at the edge of the floorplan where it begins to angle upwards. MAKE SURE THE BODYSHELL IS SECURE IN THIS POSITION BEFORE STARTING WORK.

These instructions are for building a Midas from a basic Bronze kit: obviously ignore the sections applying to any options which you have had fitted at the factory.

Firstly, clear the car of all loose parts supplied with the kit, especially the carpet and trim panels. Remember to store them in a clean dry place.

REAR LIGHT UNITS

Tools Needed	Parts Needed
1 — 5/16″ AF Socket	2 TR7 rear light units and fixing nuts

Fit light units into predrilled holes and tighten all six nuts. Be careful to pull up evenly and not to overtighten. Make sure the foam gaskets seat properly.

Connect wires as follows:

Sidelights - outer top - red
Brake Lights - inner top - green/purple
Indicators outer lower - n/s green/red
o/s green/white
Reversing lights - inner lower - green/brown
Earth tag on casting - black

HEADLIGHTS

Tools Needed	Parts Needed
1 Long posidrive screw-driver	2 Allegro/Reliant headlight units 8 x ¾″ x No 8 Posipan self tappers

Remove headlamp cowls by undoing retaining screw inside bonnet. Note that this screw also retains the wiring loom 'P' clip. Offer up headlight unit into aperture and

mark through the four mounting holes onto the fibreglass. Remove light unit and drill four 1/8″ diameter holes. Replace light unit and secure with four off ¾″ x No 8 Posipan self tappers. If using Reliant units, connect wires to corresponding colours in loom. If using BL units, connect into loom using Lucar adaptor number 54702580. Replace headlamp bezel and secure with retaining screw, making sure that wiring loom P clip is also retained.

FRONT SIDE/INDICATOR LIGHTS

Tools Needed	Parts Needed
1 Posidrive screwdriver	1 pair Metro side/indicator lights and fixings
1 - 5/16″ AF socket with extension	1″ 3/16″ bore polythene tubing
	2 Bullet connectors

Remove front 1/4 bumpers by removing the two retaining screws on each one. Take your light units and cut off the eyelet on the black earth wire. Strip end of wire and crimp on ‘bullet’ connector. Select correct light unit (they are handed, the writing on the lens must be the right way up) and fit to predrilled aperture, ensuring that there is a 3/8″ long spacer made out of polythene tubing on the outer fixing stud. Fit securing nuts but do not tighten. Refit bumper and tighten: now tighten securing nuts until light unit is evenly spaced within the aperture in the bumper.

Connect wires as follows:

Red to red/green
Green/white or green/red to green
Black to black

(In fact the connectors will only assemble one way)

HORN

Tools Needed	Parts Needed
2 – 7/16″ AF spanners (one of which should be a socket)	1 Mini horn

The horn mounting bolt is situated on the near side of the engine compartment: it is the lower of the two bolts. Remove the nut and washer from the bolt provided, fit horn MAKING SURE EARTH WIRE IS STILL CONNECTED TO BOLT. Tighten nut and connect purple wire to horn.

STARTER SOLENOID

Tools Needed	Parts Needed
1 – ¼ BSF open ended spanner	1 Mini starter solenoid
1 – ¼″ round file	

The Mini starter solenoid is mounted via two slotted holes: file these to be ¼" wide. (The starter solenoid will eventually be mounted onto the same bolts that secure the timing inspection cover on the fly wheel housing) . Onto the stud which also has the Lucar connectors, fit:

the red battery cable
the brown cable with an eyelet

Fit the other brown cable onto one of the Lucar terminals which are attached to this stud. (The other stud takes the cable to the starter motor) . The white/red wire connects to the separate Lucar connector on the body of the solenoid.

HIGH INTENSITY REAR FOG LIGHTS

Tools Needed	Parts Needed
1 flat file	1 pair Metro foglights
1 tube silicone sealant	4 bullet connectors

Prepare the two Metro foglights by cutting off the two pin plug, and crimping a bullet connector onto each wire. Assembly is straightforward: select the correct light for each side (make sure the writing on the lens is the right way up) and push through the aperature in the bumper until the lens is recessed by about ½". Holding the light in this position, move inside the car and squeeze a bead of silicone sealant all round the light unit to both and make it water tight, and to secure it. Leave to harden (about four to six hours). Repeat for the other side. Electrical connections: the coloured wire from the light to the blue/yellow wire in the loom: the black wire from the light to the black connector in the loom.

Having fitted all the light units the next stage is to start the mechanical assembly. The fitting out of the interior is left until last.

FUEL TANK

Tools Needed	Parts Needed
2 – 7/16" AF Spanners, one of which should be a socket with extension	Minivan or Traveller Fuel Tank
1 posidrive screwdriver	2 Body grommet for above
1 stubby posidrive screw-driver	3 off 1" x ¼" UNF HHSS with D washers and Nyloc nuts)from 3 off 1" x 10"posipan self tappers with washers)kit
1 blade screwdriver	1 - 9" length Petroflex hose (GGT1O4)
Plus assistant	Fuel filler pipe

PREPARATION: Cut off filler neck 2" down from the top. Clean sawn edge on tank with file and retain offcut. Fit the body grommet over tank filler the reverse way to normal.

INSTALLATION: Offer tank up from under car, inserting filler neck through large precut hole in floorpan. Line up tank with predrilled mounting holes and with the help of your assistant secure the front edge with the 3 off 1″ x ¼″ UNF HHSS. Make sure the D washers are under the head of the set screw and on the inside of the car. Do not tighten. Secure the rear edge of the tank with 3 off 1″ x l0s posipan self tappers with washers. Tighten all six fixings.

Cut off fuel feed pipe 6″ from the fuel tank end, and connect to main fuel feed pipe using the length of Petroflex hose.

Remove one of the lower fuel gauge unit retaining screws. fit earthing eyelet (black wire) and replace, making sure that there is no paint or underseal to affect the contact. Fit Lucar connector (Green/black wire) onto fuel gauge unit.

The top part of the fuel tank neck which was previously cut off should now be inserted through the body using the standard Mini body grommet (A little WD40 can help this operation). Moving inside the car, the filler neck is now connected to the fuel tank, either by a length of convoluted hose, or by using fuel filler pipe DHM 46 and two short lengths of rubber pipe.

MAIN BRAKE AND FUEL PIPES

BRAKE PIPE

The brake pipe is made from a 99 inch length of 3/16″ dia brake piping. We strongly recommend the rustfree KUNIFER 10 copper/nickel alloy pipe, rather than steel Bundy pipe. **ON NO ACCOUNT SHOULD SECOND HAND BRAKE PIPES BE USED.**

Remember that you must fit dual circuit brakes. Start by fitting the pressure control valve to the hold drilled in the front cross member, with the large nut on the end closest to the centre of the car. The brake pipe should be fitted with one 10mm metric male fitting and one 3/8″ UNF male fitting: the metric fitting goes into the pressure control valve on the bulkhead, and the UNF fitting into the T-piece on the rear subframe. Starting at the front, leaving enough pipe to make the two sharp bends below the crossbeam, start bending arnd clipping the pipe into the clips fitted to the body. When you get to the rear, bend the pipe carefully to run tight up against the rear bulkhead, as it runs behind the rear sub-frame. Cut a piece of ¼" bore polythene tubing about 5″ long and sleeve the piece of pipe that runs behind the subframe to protect it from chaffing. Leave the pipe at the rear end until the rear subframe has been fitted. Return to front of pipe and make the tight bends to follow the contours of the body into the T-piece. **TAKE CARE NOT TO KINK THE PIPES.** Brake pipe can be bent quite easily by hand pressure around a suitable former. i.e. a hammer head.

the front cross member, with the large nut on the end closest to the centre of the car. Then proceed as for the single circuit brakes, remembering that the METRIC fitting fits in the brake compensating valve at the FRONT of the pipe.

FUEL PIPE

Made from a 101 inch length of ¼" KUNIFER piping. Start pipe level with underside of front crossmember, then bend and clip into place, as for brake pipe. Sleeve pipe behind rear subframe in the same manner. Return to front of pipe and bend last 2" horizontal, parallel to bulkhead and pointing to centre line of the car.

REAR SUBFRAME

Tools Needed	Parts Needed	
1 - 9/16" AF open end or ring spanner	1 Midas rear subframe	)
	82¼ x 3/8 UNF bolts	) as supplied
1 - 9/16" AF socket	16 3/8 UNF penny washers	) in kit
	8 3/8 UNF Nyloc nuts	)

INSTALLATION: Firstly remove the g.r.p. beam end covers by removing the two self tapping screws. The rear beam bolts up onto the eight predrilled holes in the rear bulkhead. It is easiest with two people, one on either side of the car. Secure a penny washer (with masking tape) over each of the mounting holes, on the inside face of the beam. Lift the beam into position and fit the four end bolts (2 each side) into their holes. Secure on the inside with a penny washer and nyloc nut. Nip up, but do not tighten, the nuts. Fit the four central bolts, and again secure with penny washers and nyloc nuts on the inside. Tighten all eight nuts. PLEASE NOTE THE FOLLOWING POINTS:

1. There must be a penny washer between the subframe and the fibreglass on all eight bolts.

2. Make sure that neither the brake pipe or the fuel pipe is crushed or damaged by the rear subframe, and that both are protected against contact with the subframe.

REAR SUSPENSION UNITS

Tools Needed	Parts Needed
9/16" AF open ended spanner	2 Coil spring/damper units
9/16" AF ring spanner or socket.	supplied with kit
Plus assistant	

INSTALLATION: Remove the two nuts, one steel washer and one rubber mounting.

Offer up the suspension units from under the wheel arch and ensure that the stepped portion of the lower rubber mounting engages correctly in the hole in the monocoque. (A little WD40 may be used on the rubber mountings to ease assembly). Hold the suspension unit firmly in position whilst your assistant positions the top rubber mounting, the steel washer and the retaining nuts from inside the car. Do up the lower nut until the mounting rubbers are just begining to bulge. DO NOT OVERTIGHTEN. Lock the lower nut in this position with the top nut.

REAR SUSPENSION AND HANDBRAKE

Tools Needed	Parts Needed
1 off ¾ AF ring spanner	Tin medium grease (plus for the best job, a tin of copper based assembly compound)
1 off ¾ AF socket spanner	Brake fluid
1 of f 9/16 socket spanner	Rear suspension and handbrake mechanism complete
1 off 9/16 AF open ended spanner	
1 off 5/16 AF open ended spanner	
1 off 10mm open ended spanner	
1 of f 5/8 AF open ended spanner	
1 of f 7/16 AF open ended spanner	
1 off ½″ AF open ended spanner	
1 off Blade screwdriver	
1 off Posidrive screwdriver	
1 pair pliers	

INSTALLATION: The suspension arms should be fitted complete with brake and hub assembly. Lightly grease the pivot shaft and insert through suspension arm with the grease nipple on the outside (wheel side) of the arm. Grease the thrust washers and fit over pivot shaft, (larger washer fits on inside of arm). Retain thrust washers to arm with the two rubber sleeves.

Place 1″ and 3/8″ plain washer over damper stud on suspension arm and insert stud through bottom mounting of damper. Secure with another 1″ x 3/8″ plain washer and nyloc nut. Leave nut finger tight.

Lift front of suspension arm and insert pivot shaft through inner (fixed) bracket, making sure that the inner thrust washer does not slip out of the rubber seal. Fit spring washer and nut to inner end of pivot shaft.

Fit subframe end bracket to outer end of pivot shaft and over subframe, secure with spring washer and nut. Tighten this nut and nut on inner end of shaft.

Align vertical holes which locate subframe end bracket, fit bolts from underneath, nyloc nuts on top, and tighten.

NB: It may be necessary to jack under outer end of bracket to align holes, to relieve weight of the suspension arm.

Tighten nut which secures the damper to the suspension arm. Repeat on the other side of the car.

FIXINGS TO CHECK FOR TIGHTNESS:

Nut on each end of pivot shaft (4))
Nut/bolt securing subframe end bracket to subframe (4)) All 40ft/lb
Nuts securing dampers to suspension arms (2))

Fitting the handbrake cable. The handbrake cable is in two parts; one cable loops between the rear wheels, and is joined by a connector to a single cable that runs to the handbrake. Fit the fork end of the rear cable to one of the operating leavers using a well greased clevis pin, secured by a split pin. Clip the push off spring behind the abutment plate. Repeat on the other side. Now run the cable through the swinging quadrants on the suspension arms (ensuring nipple on cable engages in slot in quadrant) and up through the guides on the subfrarne. You should now have a loop of cable in front of the rear subframe at the rear of the central tunnel. Fit the cable connector into this loop. Fit the front handbrake cable through the connector (ensuring the distance sleeve is already fitted) and up through the hole at the top of the central tunnel. Connect cable to handbrake lever, and tighten adjusting nut provisionally. Grease cable well in all the guides. Adjust the rear brakes. Tighten hand brake adjustment nut until lever is full on the 3rd ‘click’ of ratchet.

Fit rear flexible hoses from brackets on subframe to rear suspension arms. Fit brake pipes from T-piece on subframe to subframe end of rear flexible hoses. (Be careful not to kink pipes when bending; always leaving 1″ of straight pipe out of each end fixing). Fit brake pipes from flexible hoses to brake backplates, making sure they do not foul the handbrake cable. (Have someone operate the handbrake while you check for clearance). When tightening brake connections do not overtighten; a half turn from when the joint 'nips' is quite sufficient.

Grease the pivot shafts, and replace the beam end covers. Fit rear wheels and lower car to ground, as this will mean that your Midas can now be moved more easily.

ENGINE STEADY BAR BRACKET

Tools Needed	Parts Needed
2 7/16″ AF Spanners	Engine steady bar bracket DHM 14
(Preferably one ring	2 off ¾″ and ¼″ UNF miSS
and one socket spanner)	2 off 1″ OD x ¼″ washers
	2 off ¼″ UNF Nyloc nuts

INSTALLATION: Bolt bracket onto car through the predrilled holes, with hole for the clutch hydraulic pipe nearest the outside of the car. Ensure that the 1″ OD washers are used

under the nuts on the inside of the car.
NB: THIS BRACKET MUST BE FITTED BEFORE THE PEDAL BOX ASSEMBLY.

BRAKE, CLUTCH AND ACCELERATOR PEDAL ASSEMBLIES

Tools Needed	Parts Needed
1 off ½″ AF open ended spanner	Brake and Clutch master cylinders
1 off ½″ AF socket spanner	Pedal box, accelerator pedal (and pressure compensating valve if dual circuit brakes fitted)
1 off 7/16″ AF open ended spanner	
1 off 7/16″ AF socket spanner	
Screwdr iver	
Fine nosed pliers	
Drill with 5/16″ dia drill bit	
	2 off 1″ x ¼″ UNF HHSS)from
	2 off ¼″ penny washers)kit
	2 off ¼″ UNF Nyloc nuts)
	2 off 1″ x 5/16″ UNF HHSS)
	2 off 5/16″ D washers)
	6 off 5/16″ UNF Nyloc nuts)
	6-8 off 5/16″ Plain washers)

INSTALLATION: NB Where dual circuit brakes are used, the pressure compensating valve must be bolted to the front face of the main cross beam before tlie pedal box assembly is fitted. A 5/16″ hole is provided for this purpose.

The pedal box fits up from inside the car into the predrilled holes in the main cross beam. Secure in this position by fitting the brake and clutch master cylinders with 4 new nyloc nuts. Do these nuts up until they are just tight. Move back inside the car and drill two 5/16″ holes through the lower mounting holes in the pedal box. NB: These holes come very close to the bottom of the cross beam. Secure with 2 off 1″ x 5/16″ UNF HHSS and D washers on the outside and 5/16″ UNF Nyloc nuts on the inside. Please note it may be necessary to pack between the body and the pedal box with the plain washers provided. Tighten all six fixings (4 nuts on master cylinders, 2 lower front fixings)

Lying on your back on the drivers side floor, work above your head to insert the two clevis pins which connect the brake and clutch master cylinders to their respective pedals. Secure with new split pins, which must be properly bent over using a screwdriver and fine nosed pliers. Check both pedals for free movement.

Bolt up the accelerator pedal through the two predrilled holes. The 2 off 1″ x ¼″ UNF HHSS must be inserted from the engine compartment side ie: the nuts must be on the inside. Check accelerator pedal for free movement.

HYDRAULIC PIPEWORK

Dual Circuit Brakes (1 off 13″, 1 off 14″)

Pipe from lower connection on master cylinder goes to the front brake inlet on the compensating valve, and the upper connection to the rear brake inlet on the compensating valve.

Clutch (13″ long)

Pipe from master cylinder to large hole in engine steady bar bracket ready to accept clutch flexible hose.

THE DASH BOARD ASSEMBLY

Tools Needed

Posidrive screwdriver

The dashboard must now be removed in order to fit the windscreen wiper rack, the screen washer and the heater. The dashboard is retained by 6 black self tapping screws; there are two at each end, and two underneath. Remove these screws and the dashboard can be eased back. BE CAREFUL NOT TO DAMAGE THE TRIM ON THE WINDSCREEN PILLAR.

Preparation:

Tools Needed	Parts Needed
1 posidrive screwdriver	2 eyeball vents
1 ¾″ AF open ended spanner	2 demister ducts
	2 Sherpa choke cables
	2 ¾″ x 8 black posidrive countersunk self tappers

Prepare the dashboard for reassembly by fitting two Mini ‘eyeball’ vents to the predrilled holes in the top of the dash. The vents go up from underneath and are secured by the screw on rim. Next, the standard Mini demister vents are placed under the slots in the top of the dash, and secured by two black ¾″ x 8 posi countersunk self tappers. Finally, the two control cables are fed through the holes under the instrument pack and secured. MAKE SURE THESE NUTS ARE TIGHT. Set dash to one side until you are ready for reassembly.

HEATER

Tools Needed	Parts Needed
7/16″ AF open ended spanner	Mini heater
7/16″ AF socket spanner	4 off ¼″ UNF nyloc nuts
Drill with ¼″ dia drill bit	2 off l3mrn–l9nixn Jubilee clips
Blade screwdriver	2 off heater mounting brackets DHM9
	2 off ¾″ x ¼″ UNF hexhead setscrews
	6 off ¼″ penny washers
	6 off ¼″ UNF nyloc nuts
	2 off 1½″ x ¼″ UNF hexhead setscrews
	4 off ¼″ UNF plain screws
	1 tube silicone sealant
	1¼″ dernister tubing
	2½″ eyeball tubing

INSTALLATION: The Mini heater mounts under the dashboard by means of the two brackets which connect to the long studs at the rear of the heater. The front of the heater is secured by 2 off ¼″ UNF studs which are installed at the front of the dash. In order to accept these studs the two slots in the front mounting of the heater must be enlarged to ¼″ using a ¼″ drill.

The heater mounting brackets bolt up from under the dash board to the predrilled holes marked 'A': one is in the structural dash and the other is in the engine compartment. Secure these brackets using the ¾″ x ¼″ UNF HHSS, penny washers and nyloc nuts. The bolt in the engine compartment should be sealed with a little silicone sealant to prevent water ingress. Before the brackets are tight, run a ¼″ UNF plain nut onto each side of the rear studding on the heater and assemble onto the two brackets. Tighten brackets to car, ensuring heater is square to front of dash.

Next, fit the two 1½″ x ¼″ UNF HHSS with penny washers, down through the two holes marked 'B' in the structural dash. Secure with penny washer and nyloc nuts. Fit a ¼″ UNF plain nut to each stud, and run up until it touches the nyloc already in place.

Make both connections to the heater. The earth (black) connects into a 'bullet' connector, and the (green) Lucar connector goes to the back of the switch. Swing the front of the heater up until it engages the two studs into the two enlarged slots in the heater. Secure with nyloc nuts. Secure the rear of the heater to the brackets by a Nyloc nut each side, adjusting the inner and outer nuts until they are correctly spaced and tight.

BONNET RELEASE CATCH

Tools Needed	Parts Needed
2 7/16″ AF spanners, one preferably a socket	1 Fiesta bonnet cable 2 ¾″ x ¼″ UNF hexhead set screws 2 ¼″ penny washers 2 ¼″ UNF nyloc nuts

Bolt up bonnet release handle to underside of dash using the two ¾ x ¼ UNF HHSS through the predrilled holes on the nearside of the structural dash. Leave cable hanging under dash.

The height of the front of the heater is also adjustable, and you will need to refit the trim dash temporarily in order to check that the heater slide aligns exactly with the slot in the dashboard.

With the heater secure, connect the two ½″ water hoses using the jubilee clips specified. Make sure there are no kinks in the hoses. Also run the 1¼″ demister hose from the heater up through the holes in the structural dash.

WINDSCREEN WIPER MOTOR AND RACK

Tools Needed	Parts Needed
¾″ AF open ended spanner	Mini saloon windscreen wiper motor
Posidrive screwdriver	Lucas Type 14
Sealant (black Bostick)	Wiper rack, 17½″ between wheelbox centres
1 pair pliers	Wiper mounting block
1 medium sized blade Screwdriver	Wiper mounting strap
	2 off ½″ x 8s Posipan ST screws
	2 off wiper gearbox spacing tubes (¾″ long x 5/8″ bore rubber or plastic tubing)
	1 off 95° wiper gear, Part No. WGB222.

PREPARATION: Remove the top of the wiper motor, and the circlip on the bottom of the gear shaft. Remove the gear assembly complete, and replace with the 950 wiper gear.

INSTALLATION: From inside the car, offer up the wiper rack making sure the two distance pieces are pushed firmly over the operating shafts. The large nut that secures the rack to the motor goes through the hole in the bulkhead, and the two wheel boxes go up through the holes just below the windscreen. It may appear initially that the holes for the wiper wheelboxes are in the wrong place, but this is due to the ‘splay’ in the rack. With the wheelboxes in place, cut down the standard black rubber sleeves until they are parallel ended and about ¼″ long. Apply a little sealant (black Bostick) to the ends, push over the drive shafts, secure with the nuts and tighten. Moving to the front of the car, thread the spiral drive through the rack, making sure both wheelboxes engage. Tighten the rack to motor securing nut. Secure the motor to the car with the standard strap and rubber block system, using 2 off ½″ x 8s self tapping screws in the predrilled holes. Plug in electrical connection.

WINDSCREEN WASHERS

Tools Needed	Parts Needed
5/16″ AF open ended spanner	Smiths T 373 washer kit
Short posidrive screwdriver	2 off ½″ x 8s posipan self tapping screws.
Sharp knife or snips	

INSTALLATION: Secure the water bottle mounting bracket to the side of the engine compartment (opposite batter, using the 2 - ½″ x 8s self tapping screws into the predrilled holes. Plug in electrical connections then fit the bottle to the bracket. Fit the screen jet into the holes at the base of the screen and tighten. Connect the pipework as indicated in the instructions, arranging your pipe runs so that they can be clipped or taped to the wiper rack.

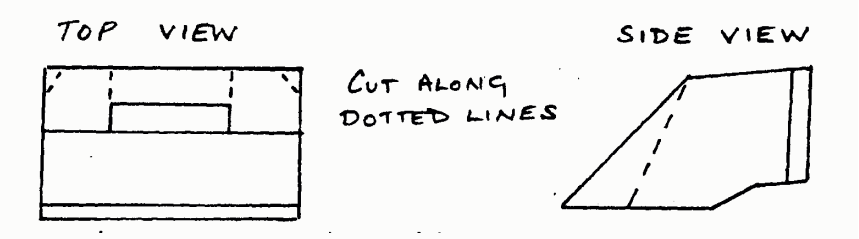
The dashboard may now be refitted. Remember to thread the two control cables through the main wiring grommet, in the bulk head. Secure trim dash with the 6 black self tapping screws. Working through the instrument pack hole, reconnect the LH demister hose, LH eyeball, RH eyeball and

RH demister hose. Reconnect all 5 electrical switches. Finally connect the two demister hoses to the heater by pushing them over the outlets on the heater.

INSTRUMENT PACK

Tools Needed	Parts Needed
1 7/16″ AF socket	4 1″ x ¼″ UNF hexhead set screws
1 hacksaw	1 Speed o cable GSD 374
1 flat file	1 Metro 1.3 HLS/Vanden Plas instrument pack
	Araldite adhesive
	4 ¼″ penny washers
	4 ¼″ LINE nyloc nuts

PREPARATION: The instrument pack must be modified for its Midas application. Using a hacksaw cut off the instrument pack as indicated:



Turn instrument pack upside down and locate the 4 fixing slots in the base of the pack. File heads of 1″ x ¼″ UNF HHSS until they just slide into these slots. Having made sure they are fully engaged and ‘square’ bond them in with Araldite adhesive.

Whilst the adhesive is drying, make sure that the loom is tidy behind the dash. Behind the instrument pack aperture, it is best to secure it to the bulkhead with ‘Tank Tape’ or Masking tape. When the Araldite is really hard (do not rush this stage) connect the speedo cable to the back of the speedo, and feed it down through the hole at the base of the bulkhead. As the pack approaches the dashboard, connect the multi terminal plugs, then push the pack firmly into the dashboard. The lower edge should be engaged first, and the top of the pack pushed forward and down. DO NOT USE EXCESSIVE FORCE. If the pack does not go in it is fouling something - remove, check and try again. Secure the pack by using penny washers and ¼″ UNF nyloc nuts on the 4 studs protruding through the structural dash. DO NOT OVERTIGHTEN. The speedo cable passes through the large diameter hole in the passenger footwell, which is sealed by the grommet on the cable.

STEERING RACK AND STEERING COLUMN

Tools Needed	Parts Needed
½″ AF socket spanner	Mini “Twin Stalk” steering column
Plus assistant	Mini steering rack
	Mini rack securing U bolts
	4 off 5/16″ penny washers
	4 off 5/16″ nyloc nuts

INSTALLATION: The rack bolts to the predrilled holes in the front floorpan using the standard Mini U bolts. Whilst your assistant holds the rack in place, and pushes through the U bolts, secure the U bolts using 4 penny washers and 4 nyloc nuts. (Make sure that the drivers side U Bolt is engaged in the location groove in the rack) . Do up the U bolt nuts just tight enough to allow the rack to be rotated.

Engage the steering column on the splines on the rack ensuring that the clamp bolt hole aligns with the groove on the rack and rotate the assembly until the steering column top mounting aligns with the bracket under the dashboard. Secure with the bolt provided . FIT CLAMP BOLT TO COLUMN/RACK JOINT AND TIGHTEN. TIGHTEN RACK MOUNTINGS.

Plug in the three multi terminal sockets between the column and the wiring loom and arrange the wiring out of the way of the drivers feet.

Fit the standard Mini cold air inlet trunking between the heater and the connector on the drivers wheelarch.

RADIATOR

Tools Needed	Parts Needed
Posidrive screwdriver	Allegro 1300 radiator complete with thermostatic switch and electric fan. Also expansion bottle and mounting bracket.
Blade screwdriver	2 off ½″ x 8s Posipan ST screws
	2 off ¾″ x ¼ UNF posi countersunk set screws
	2 off 3/8″ penny washers
	4 off radiator mounting rubbers

INSTALLATION: The first step is to remove the bonnet. Using a posidrive screwdriver undo the two retaining screws on one of the bonnet hinges. Using a blade screwdriver, lever the hinge gently backwards until it disengages from the body.

Build up the radiator assembly on the bench including fitting the nylon hose to the expansion bottle. Lubricate the lower rubber radiator mountings with a little WD4O and fit the complete radiator assembly into them.

The top radiator mounting brackets are secured by the two Posidrive set screws and 3/8″ penny washers onto the front panel (where the number plate will go). Fit the top brackets to the top of the radiator, then attach them to the front panel, making sure the brackets do not rotate as you tighten the set screws.

Fit the expansion bottle mounting bracket to the offside of the engine compartment using 2 off ½″ x 8s Posipan ST screws into the predrilled holes. Fit the expansion bottle into the bracket and finally secure the nylon hose to the outlet at the bottom of the bottle.

BATTERY

Tools Needed	Parts Needed
½″ AF open ended spanner	Size 104 battery bolt through type posts Battery mounting block

INSTALLATION: Fit battery into recess and secure in position with retaining clamp, ensuring that the mounting block is fitted between the battery and the side of the engine compartment. Fit the two main battery cables to the battery posts and tighten.

The next step is to prepare the engine compartment for the power unit.

DAMPER BRACKETS

Tools required	Parts Required
2 7/16″ AF spanners, one preferably a socket with and extension	1 pair modified BL Mini top damper brackets DHM 28/29
1 blade screwdriver	2 damper bracket fixings DHM 30
Electric drill with ¼″ bit	4 1½″ x ¼″ UNF hexhead set screws
	4¼″ penny washers
	8 ¼″ UNF nyloc nuts

The modified damper brackets are bolted under the front wheelarches, using the two predrilled holes each side, which engage in the topmost holes in the brackets. Fit the brackets with the damper mounting stud at the top, facing forwards. Secure the brackets using the 1½″ x ¼″ UNF HHSS and nip up. DO NOT TIGHTEN. NB: The eyelet on the main battery earth, and the earthing eyelet on the wiring loom should both be fitted to the front bolt on the drivers side. With the brackets bolted in place, align them (by tapping) until they are parallel to the front bulkhead. Drill two ¼″ diameter holes in each side through the higher of the two sets of lower holes. Insert the damper fixing DHM30 through the large diameter subframe fixing hole, and using a screwdriver, push the two studs through these mounting holes you have just drilled. Secure with ¼″ UNF nyloc nuts and tighten all four fixings on each side.

FRONT SUBFRAME ASSEMBLY

The front subframe assembly, which includes the engine, gearbox and front suspension, is fitted to the car as a single unit.

The later type (post October 1976) ‘single bolt’ subframe must be used. This subframe is rubber mounted, and the first step is to fit the 2 front, and 2 rear rubber mountings. NB: The front rubber mountings are fitted with the centre hole secured to the subframe and the body mounting hole vertically BELOW the centre hole. Make sure the centre bolt is tight as it is inaccessible after assembly. Also file off the metal pin on the mounting as it

is not used on the Midas. The rear mountings fit with their flange BELOW the subframe.

Use your workshop manual to build up the suspension and engine onto subframe. The engine should be fitted with inlet and exhaust manifolds, but no carburettor, and the distributor cap should be removed. Otherwise it should be complete in all respects.

If you are using a Mini engine and gear box, rather than Metro components, it is essential that you change the speedometer drive gears, situated below the speedo drive odcput in the gear box, for the equivalent Metro components. This work must be done before the power unit is fitted to the subframe. These components are part numbers DAM 2904 and 22G2O22 for a 3.44 final drive. (See note on page 4)

Fit the front wheels to the hubs, and block the front subframe securely in position in front of the car, with a jack under the sump. Make sure the oval rubber washers are fitted to the top of the subframe towers.

You will now need two helpers to lift the front of the car high enough to clear the engine, and then run it forward on its rear wheels, before lowering the car gently over the subframe assembly. The jack can be used to alter the attitude of the subframe, and keep an eye on the steering rack, alternator and distributor as the body is lowered.

When you have aligned the main mounting holes secure using the two large bolts. Do not forget to fit the spacers to these bolts. Securing them with a little masking tape. WD4O on the top rubber mounting will prevent it picking up as the bolt is tightened.

With the main mountings in place, secure the front and rear mountings through predrilled holes. Remember always to use a 5/16″ penny washer on the other side of the GRP.

The process of making the remaining connections of engine, fuel system, steering rack, speedo cable etc., is exactly the same as for a Mini and will be detailed in your workshop manual.

MODIFIED PARTS

ENGINE STEADY BAR:

This must be shortened to give 5¾″ between centres. This can be done on exchange basis at the factory for £5 plus VAT.

ROD GEAR CHANGE:

This-must be lengthened by cutting and sleeving to extend the overall length by 3¾″. Make sure that you cut the static and moving rods at opposite ends, and that you extend each rod by exactly the same amount. Modified rod change units are available from the factory for £15 plus VAT exchange or £50 plus VAT outright. These prices include shortening the gear lever by 2″.

ELECTRICAL CONNECTIONS: The electrical connections to be made to the engine are as follows:-

Plastic multiplug) Brown/brownyellow)	Alternator
White	Coil positive
White/Black(double)	Coil negative
White/Black(single)	Distributor
White/Brown	Oil pressure switch
Blue /Green	Water temperature Transmitter

WATER CONNECTIONS

The bottom hose is standard Allegro 1300, but cut ½″ off the water pump end to bring the hose clear of the subframe tower. The top hose is extended using connector DHM31 and hose GRH467. Remember also to change the Mini thermostat cover for the Allegro one. When connecting the heater hoses, use adaptor DHM32 between the bottom hose and the heater hose. The heater water valve adaptor DHM34, fits between the cylinder head and the heater valve in order to give clearance on the bonnet.

EXHAUST SYSTEM

Standard Exhaust Manifold (Clamp Type)

The front pipe and silencer for this system are from a BL 1100/1300. If you purchase a separate front pipe and silencer, assemble in the normal way, and use the Midas tailpipe supplied in the kit. If you obtain a one-piece system, cut off the tailpipe, and then proceed as above. The centre exhaust mounting is also from a BL 1100/1300, but we use longer rubber ‘bobbins’ for better results. The tailpipe is mounted using a Harmo MB80 strap.

INSTALLATION:

Tools Needed	Parts Needed
½″ AF socket	BL 1100/1300 front pipe & silencer
½″ AF open ended or ring spanner	Midas tailpipe
1 Posidrive screwdriver	BL exhaust manifold clamp
Electric drill with 5/32″ drill bit	2 off 1½″ Benelli clamps
	1 off 15/8″ Benelli clamp
	1 off BL 1100/1300 exhaust mounting
	1 off Harmo MB8O exhaust strap
	1 1″ x 10 Posipan ST screw
	1 ¼″ penny washer
	1 tube Firegum

This part of the assembly is easier if the whole car is jacked up and supported on four axle stands. MAKE SURE IT

IS SECURE — NEVER WORK UNDER A CAR SUPPORTED ONLY BY A JACK. You will also need an assistant.

With one person working down from the top of the engine compartment, the other person should offer up the front pipe and silencer from underneath. The person on top should secure the front pipe to the manifold using a clamp liberally coated with 'Firegum'. Make sure the clamp is properly seated as they have to be perfect if they are not to leak. When the clamp is nipped, but not too tight, the 'top worker' should mover underneath the car and fit the tailpipe to the rear of the silencer, whilst his assistant continues to support the silencer. The centre exhaust clamp is fitted to the bracket on the subframe using the 1″ x 5/16″ UNF HHSS make sure there is a 5/16″ plain washer under the head of the set screw and under the nut. The exhaust system passes through the centre of the bracket (Between the two rubber 'bobbins') and is attached to the lower part of the bracket by a 15/8″ Benelli clamp, which also clamps the tail pipe to the silencer. The exhaust must not touch the upper part of the bracket. Support the tail pipe in the correct position whilst tightening the Benelli clamp: When this is tight, return to the front and tighten the exhaust manifold clamp. Finally the Harmo MB80 exhaust strap should be attached to the tailpipe by a 1½″ Benelli clamp, and fixed to the inner return of the wheelarch by means of the 1″ x 10 self tapper and ¼″ penny washer. When drilling the 5/32″ hole for this self tapper, ensure that the strap will be under slight tension when the exhaust is hanging normally.

LONG CENTRE BRANCH (LCB) MANIFOLDS

These manifolds terminate under the car in a single 1¾″ OD pipe. The Midas stainless steel exhaust has been designed to be used with these manifolds, and is the only proprietary system available. Assembly is similar to the standard system, but all the assembly can be carried out by one person working under the car. All joints should be sealed with 'Firegum' and the Benelli clamp sizes are: 1 off 17/8″: 1 off 1¾″: 1 off 15/8″: 1 off 1¼″

BONNET LATCH AND STRIKER

Tools Needed	Parts Needed
1 Posidrive screwdriver	1 Midas bonnet striker DHM5
1 7/16 AF socket	1 Fiesta Bonnet latch
1 Electric drill with 1/8″ drill bit	1 Fiesta bonnet release cable
	1 BL 1100/1300 bonnet stay
	10 ½″ x 8 Posipan self tapping screws
	2 20mm x M6 HHSS
	2 ¼″ penny washers
	1 tube silicone sealant

Fit the Fiesta bonnet latch to the bulkhead, using the 2 20mm M6 HHSS and 2 penny washers into the threaded inserts. The large square holes in the Fiesta latch allow for adjustment. Nip the catch into position as nearly central

in these holes as possible. The Fiesta bonnet cable (previously bolted to the structural dash) is now fed through the hole in the bottom of the bulkhead above the passengers feet, and clipped into the bonnet catch. Push the grommet on the cable firmly into the hole, and seal with silicone sealant. Check the latch for operation. Refit the bonnet temporarily by engaging the hinge pin that was not removed, then sliding the other hinge pin back into position. Do not secure. Close the bonnet and mark the position of the centre of the striker groove on the latch onto the end of the bonnet. Remove the bonnet and place inside face upwards on the bench, on a piece of foam to protect the outer surface. Align the bonnet striker, DHM5, from side to side with the mark on the bonnet: fore and aft, the bracket sit centrally on the bonnet inner moulding. Using the bracket as a template, drill 2 1/8″ diameter holes in opposite corners (CARE - DO NOT STRIKE OUTER SURFACE WITH TIP OF DRILL) and secure with 2 ½″ x 8 Posipan self tappers. Drill remaining 6 holes and secure.

Refit bonnet and close. Adjust latch until bonnet closes correctly. Tighten latch. DO NOT OVERTIGHTEN. Refit hinge pin retaining screws.

TRIMMING THE INTERIOR

The final stage of the completion of your Midas Bronze is the fitting of the interior trim, and the first thing to do is to glue the side carpets in place. These are the two long pieces with cut outs for the doors and rear quarter lights. The rear quarter light glasses must first be removed by peeling out the central rubber locking strip, then removing the glass (firm push on one corner from inside) and the glazing rubber. Also pull off the seal onto which the door closes. Clear an area large enough to lay one of the side carpet pieces face down on old newspapers. Using the Midas glue kit, or any suitable glue such as Evostick, and a 3″ paint brush, brush a thin layer of glue all over the back of the carpet and leather cloth edgings. When finished, move quickly inside the car and apply a similar thin coating to the GRP side of the car. NB. NEOPRENE SOLVENT BASED GLUE SHOULD ONLY BE USED IN WELL VENTILATED AREAS. IT IS ALSO HIGHLY INFLAMMABLE. When the glue is dry to the touch, get inside the car whilst an assistant feeds- the carpet to you through the rear screen. Remember that the adhesive is a 'contact' adhesive and allows very little repositioning. Start by aligning the carpet along the top of the rear quarter light and down the rear edge of the door. Until you are satisfied with the positioning, only dab into place, so that you can pull off and reposition. KEEP THIS TO A MINIMUM. When you are satisfied the carpet is square spread it into position and smooth all over to ensure contact. Repeat for other side. Note that on the drivers side, the fuel tank filler mechanism must be removed before the carpet can be fitted.

When the glue is fully hard (four to six hours) trim off the excess leathercloth around the door apertures with a sharp knife and cut the rear quarter light aperture in the leather

cloth that is now covering it.

Do not refit the door seal. Refit the rear quarter light glasses: You will need a ‘Claytorite’ tool to refit the central sealing strip.

GAS STRUT BRACKETS

Tools Needed	Parts Needed
1 7/16″ spanner preferably a socket	2 gas strut brackets
1 Posidrive screwdriver	4 ½″ x ¼″ UNF Posidrive countersunk set screws
	4 ¼″ UNF Nyloc nuts
	Tube silicone sealant

The brackets bolt up through holes in the rear screen drain channel, with their vertical flanges towards the inside of the car. Coat two of the ½″ x ¼″ UNF Posidrive countersunk set screws with silicone sealant and insert from top of rain channel. Put up bracket from underneath, and secure with 2 ¼″ UNF nyloc nuts. MAKE SURE THAT THE BOLT HOLES ARE WATERTIGHT.

HEADLINING

Tools Needed	Parts Needed
1 posidrive screwdriver	1 o/s Fiat 126 sunvisor
Electric drill with 1/8″ drill bit	1 n/s Fiat 126 sunvisor
	1 pair Fiat 126 sunvisor hinges
	1 Britax 4050 Interior light
	4 ½″ x 8 black countersunk self tappers (supplied)
	4 ½″ x 8 posipan self tappers

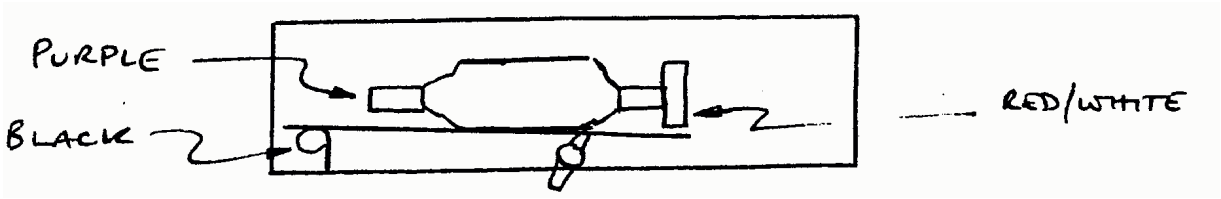
PREPARATION: Fit the sunvisors to the two recesses on the front of the headlining using the ½″ x 8 posipan self tappers. The headlining is secured by 4 black self tapping screws, through the front roll over bar, and at the rear, by the bottom of the gas struts. If gas struts are not being used then a 13mm x M8 set screw must be used to secure the headlining.

INSTALLATION: Offer up the panel, and feed the wires for the interior light through the hole in the headlining. Whilst an assistant holds the panel in place, drill a 1/8″ hole up through the headlining into the roll over reinforcement (There will be four fixings, two each side hidden by the sunvisors) . Countersink the hole, and secure with one of the ½″ x 8 black self tappers supplied. Repeat for the other three fixings. Move to the rear of the headlining and secure to the gas strut brackets, using either the gas struts or a 13mm M8 screw.

INTERIOR LIGHT

Remove lens and screw back of light onto predrilled holes

in headlining using 2 ½" x 8 posipan self tappers. Connect wires as follows:



Replace lens.

REAR HEADLINING

Tools Needed	Parts Needed
As for main headlining	4 ¾" x 8 black self tappers (supplied)

The rear headlining is fixed by 4 ¾" x 8 black countersunk posidrive self tapping screws into 4 fibreglass pads. Two are situated immediately behind the front headlining and two are situated at either side at the rear, underneath the ridged body section below the rear window. Hold the rear headlining in position, drill, countersink and secure.

FRONT WHEELARCH CARPETS

Offer up 'dry' to check fit, then glue into position as for side carpets.

The remaining carpet sections are laid out on the floor, starting from the back and working forwards. The rear of the front carpet fits over the central section. Make sure that the carpets are properly in position before making any holes for seats or seat belts.

SEAT BELTS

Tools Needed	Parts Needed
11/16" AF socket	A pair of dual sensitive inertia reel seat belts, with top belt mounting by webbing loop. (to our knowledge only Securon Type 523/30 are suitable). 1 pair Midas seat belt spacers DHM44

INSTALLATION

Bolt the reel through the pre—drilled hole in the rear bulk-head adjacent to the outer rear subframe mounting bolts. Use the seat belt spacer DHM44 between the reel and the carpet to prevent deformation of the reel backplate. Secure on the outside with the large diameter washer and a nut. Attach the top mo'unting to the threaded hole behind the rear quarter light, having first shortened the fixed webbing ioop to it's minimum length. Attach the lower mounting to the threaded hole in the outer sill below the door. Both top and lower mountings should use the stepped spacer supplied with the seat belt so that the belt can pivot freely on the mounting. The seat belt latch and stalk attaches to the threaded hole on the central tunnel, and must be positioned at approx. 600 to the horizontal. THIS IS VERY IMPORTANT. Check the belt for free running and correct latching. A sharp pull on the belt should lock the mechanism.

SEATS

Tools Needed	Parts Needed
7/16″ AF socket	Pair of proprietary seats
Blade screwdriver	Pair of seat runners (not subframes)
	18 off 5/16″ penny washers
	2 off 1¼″ x ¼″ UNF HHSS
	2 off 1″ x ¼″ UNF HHSS
	4 off ¼″ penny washers
	4 off nyloc nOts

INSTALLATION: Fit the runners to the seats, making sure that the adjusting handle moves with the seat.

Make up two spacers of 6 - 5/16″ penny washers and 2 spacers of 3 — 5/16″ penny washers. Placing the longer spacers at the front, and with the seat adjusted right back, secure the front of the runners to the predrilled holes in the floor, using 1¼″ x ¼″ UNF HHSS, with a penny washer and a nyloc nut underneath the car. Move the seat forward and repeat in the rear holes using the short spacers and the 1″ x ¼″ UNF HHSS. Tighten all four fixings. Repeat on the other side. Check seat for free fore and aft movement, locking of seat adjuster, and if appropriate, recline.

REAR PANEL AND SPARE WHEEL

The rear trim panel simply pushes into place and is retained by the spare wheel. It may be necessary to trim the edges of the carpet (they should only overlap the GRP moulding by about ½″) for a good fit. Bolt the spare wheel mounting bracket DHM33 onto wheel from rear using standard wheel nuts: only just start the nuts on the studs, so that the bracket is very loose. Place spare wheel in recess in car and rotate until central bolt can be inserted through slot in DHM33, into the threaded insert in rear of car. Tighten central bolt and two nuts in sequence. DO NOT OVERTIGHTEN.

REAR VIEW MIRROR

The Britax 4046 mirror is recommended. (Please note that if you use a different mirror it must be ‘e’ marked) Sit in the drivers seat and check position of mirror for best viewing before sticking. A good tip is to use a hair dryer to warm the screen and the adhesive on the mirror before sticking. BE CAREFUL NOT TO CRACK THE WINDSCREEN - keep the heat moving.

THE FINAL STAGES

The remaining jobs are as follows:

1.Bleed the brakes

2.Bleed the clutch

3. Fill engine with water and oil, and put some fuel in the tank.

To fill the cooling system, remove the pressure cap from the expansion bottle, and the plug from the thermostat cover. Fill through both until the expansion bottle starts to fill (remember to use a 25% — 33% Antifreeze solution in winter — this is 2 — 2.66 pints of Antifreeze). Remove the expansion bottle from its bracket and raise it until the coolant brims out of the thermostat cover. Keeping the expansion bottle in this position, refit the thermostat cover plug and tighten, then fit the pressure cap to the expansion bottle. Only then may the bottle be replaced in its mounting bracket.

4. Start the engine, checking immediately that the oil pressure light goes out. Run at 1500 rpm for 3 — 4 minutes then stop and check for leaks. If all is well, refit the bonnet.

5. Making sure the wiper motor is in the parked position fit the wiper arms and blades.

Your Midas is now complete, but please double check these safety critical items.

1. Have you bled the brakes? Have you pressure tested the brakes. (Maximum pressure on the pedal, whilst a friend checks all the brake pipes and connections for leaks) Does the handbrake work?

2. Is the steering rack and column tight? Is the column/ rack clamp bolt tight? Are the wheel nuts tight?

3. Are all the major components correctly assembled and tight?

In addition you should check the electrics for correct functioning.

We suggest that your first journey should be a gentle one to check out all the systems on the car. Your first visit should be to a garage to have the front tracking set to 1/16” toe out.

REGISTRATION PROCEDURE

With your kit you will have received a partially completed V55/5, the form for first registration of a motor vehicle. Since August 1983, your Midas Bronze will receive a prefix registration, to indicate that it does not use all new components, and it is therefore not liable for Car Tax.

To register your car, you must first obtain an MOT certificate. (You may drive your car to the MOT garage without number plates provided you have booked an appointment for a test) The paperwork you must take or send to your Local Vehicle Licensing Office is:—

1. Completed V55/5

2. MOT Certificate

3. Valid certificate of insurance

4. Cheque for Road Fund Licence

Your L V L 0 will also require a police inspection, which can take up to three weeks, so it is a good idea to notify them in good time. The police inspection is simply to ensure that none of the secondhand components you have used are stolen!

provided your paperwork is in order and that you have allowed enough time for the inspection, rQgistration is straight-forward.

H E L P!

If you do encounter any problems during the construction of your Midas, do not hesitate to contact the factory on Corby 60044.

AFTER SALES SERVICE

Midas Cars will be delighted to, carry out routine servicing and repairs at competitive rates, thus offering you that most exclusive facilities, factory servicing.

A full stock of mechanical spares is carried at the factory, and in many cases we can supply parts cheaper than a local BL dealer. Parts can be sent by 24 hour delivery if requested. We also stodk replacement body sections, and any section can be made to order.

MAY WE TAKE THIS OPPORTUNITY OF WISHING YOU A SUCCESSFUL ASSEMBLY AND MANY MILES OF CAREFREE MOTORING.

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MIDAS BRONZE MECHANICAL KIT

ITEM	QTY	MANUFACTURER/ DONOR VEHICLE	PART NUMBER
Gas strut bracket	2	Midas	DHM 1
Bonnet striker	1	Midas	DHM 5
Heater mtg bracket	2	Midas	DHM 9
Radiator top mtg bracket	2	Midas	DHM 13
Engine steady bracket	1	Midas	DHM 14
H/B spacer	1	Midas	DHM 23
lop hose adaptor	1	Midas	DHM 31
Heater hose adaptor	1	Midas	DHM 32
Spare wheel mounting	1	Midas	DHM 33
Heater valve adaptor	1	Midas	DHM 34
Fuel tank swaneck	1	Midas	DHM 46
Seat belt spacer	2	Midas	DHM 44
Battery spacer	1	Midas	DHM 47
1+″ demister tubing	4ft	Midas	-
2~″. eyeball tubing	lft	Midas	-
3*″ air trunking	4ft	Midas	-
2″ convoluted hose	lft	Midas	-
~“ heater hose	4ft	Midas	-
Main brake pipe	l0ft	Midas	-
Main fuel pipe	l0ft	Midas	-
Bonnet latch	1	Ford Fiesta	6100813
Bonnet release cable	1	Ford Fiesta	6050783
Battery clamp	1	Reliant Rialto	—
Bonnet stay	1	BL1100/1300	-
Thermostat cover	1	BL Allegro 1.3	l2G3535
Plug	1	BL Allegro 1.3	ARA2634
Ring	1	BL Allegro 1.3	IRS 1418
Radiator mtg rubbers	4	BL Metro/Allegro	21A529O
Radiator top hose	1	BL Mini	GRH467
Exhaust strap	1	Harmo	Harmo MB 80

Exhaust Mounting bobbins	2	BL	22G2205
Exhaust bracket top	1	BL 1100/1300	GEX7100
Exhaust bracket bottom	1	BL 1100/1300	GEX7101
Silencer Box	1	BL 1100/1300	Partco 5909
Exhaust front pipe	1	BL 1100/1300	Partco 5908
Speedo drive gear	1	BL Metro	DAM 6325
Speedo drive gear	1	BL Metro	2A 3720
950 wiper motor gear	1	Lucas	54702580

MIDAS BRONZE TRIM KIT

Eyeball vent	2	BL Mini	CZH 3835
LH sunvisor	1	Fiat 126	4446239
RH sunvisor	1	Fiat 126	4446235
Sunvisor hinge	2	Fiat 126	4146364
Interior light	1	Britax/MiniVan	4050
Courtesy switches	2	Metro glovebox light	-
Interior mirror	1	Britax	4046
RH door mirror	1	Renault 14	7700636258
Filler cap	1	BL Sherpa/late TR7	YKC 3397
Demister duct	2	BL Mini	CZH 624
Gas strut	2	Midas	-
Instrument pack	1	BL Metro HLS Metro Vanden Plas MG Metro	
Choke Cable	1	BL Sherpa van	KAM 2058
Heater cable	1	BL Sherpa van	KAM 2058
Speedo cable	1	BL Metro 1.3	GSD 374
Glove box retainer	1	Midas	-

MIDAS BRONZE ELECTRICAL KIT

LH front side/flash	1	BL Metro	HAM 1867
RH front side/flash	1	BL Metro	HAM 1866
LH headlight	1	BL Allegro/Reliant	AAU 4710
RH headlight	1	BL Allegro/Reliant	AAU 4710
LH rear light unit	1	BL TR7	TKC 231
RH rear light unit	1	BL TR7	TKC 232
Horn	1	BL Mini	l3H 9119
Starter solenoid	1	BL Mini	l3H 5952
Foguard lights RH	1	BL Metro	ADU 7078
Foguard lights LH	1	BL Metro	ADU 7075
Rear numberplate light	1	BL Allegro	ADU 3055

INTENTIONALLY BLANK

(P31 TO 41 IN DRAWING FILE)

DHM 44

Seat Belt Reel Spacer

This spacer is to prevent distortion of the seat belt reel backplate when it is tightened into the carpet. It can be made from a piece of 1" diameter bar, ½" long. This should then be drilled concentrically with a ½" diameter hole.

DHM 47

Battery Spacer

This spacer fits between the top of the battery and the side of the engine compartment. It is made from a piece of 1" square hollow section tube, 6 inches long.